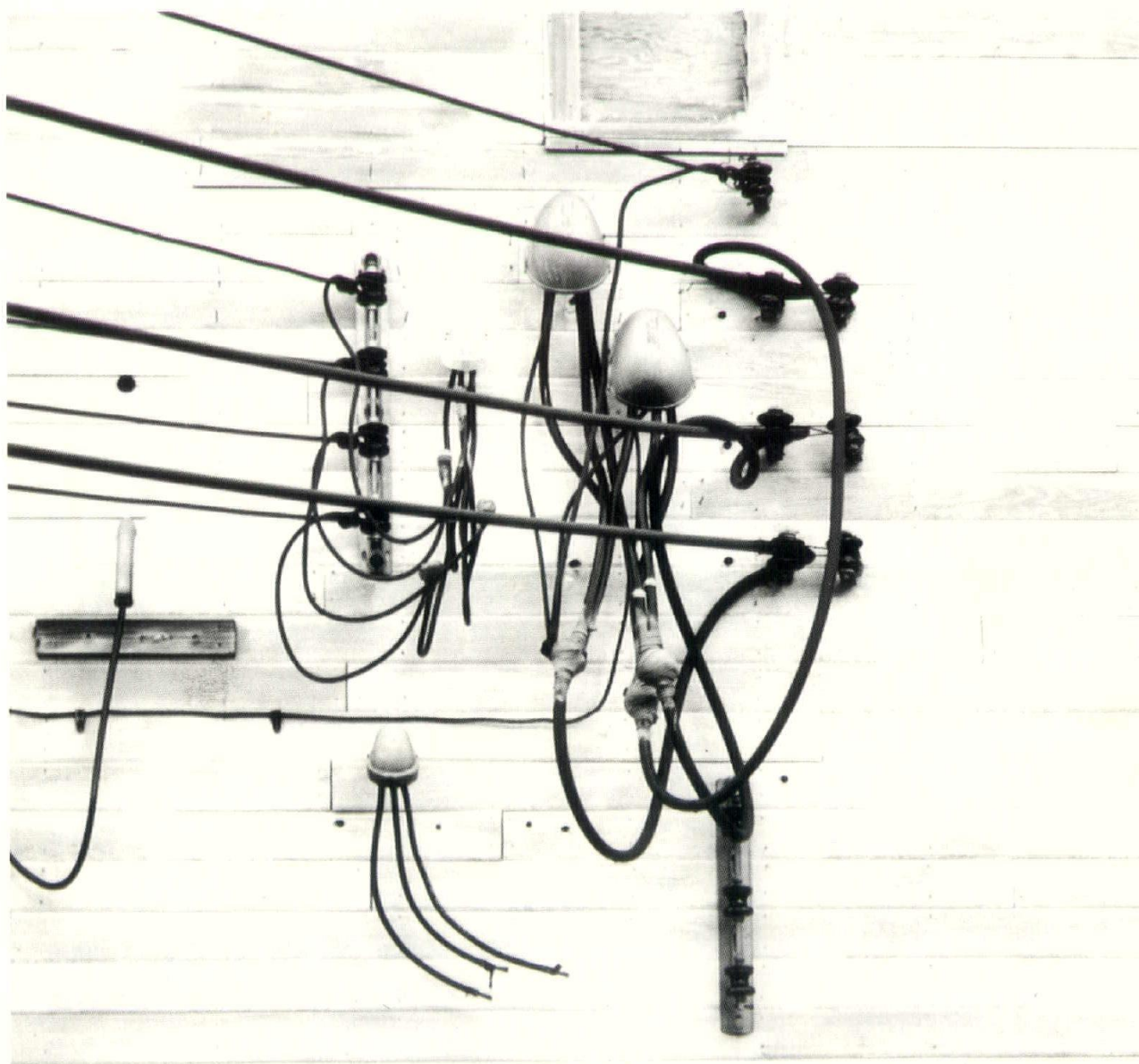


Northwest Architecture



Washington
Council

American
Institute
of
Architects

A Journal of Design
& Construction

July-August 1980

Editorial

Energy

JAMES R. McGRANAHAN, FAIA
Chairman, Editorial Board
Washington Council
American Institute of Architects

In case you have had an extremely busy summer and haven't kept up on your reading, you should be aware that a new Washington State Energy Code has been implemented effective June 30, 1980.

Adoption of this code was mandated by the 1979 Legislature in an attempt to reduce energy consumption in buildings. The adopted code has been subject to extensive hearings throughout the state conducted by the State Building Code Advisory Council. As with all new codes, it is not perfect and certainly does

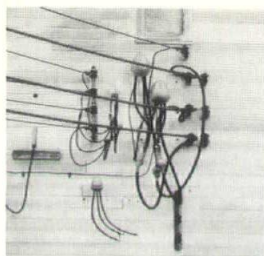
not have the unanimous support of the design/build profession. But, nevertheless, it is in effect and until we have an opportunity to work with it and offer amendments to improve upon it, we must work within its guidelines.

On the federal level, the adoption of BEPS has been delayed for a year or so pending further review. (The AIA supports the performance based BEPS in the face of strong opposition from the NAHB among others.)

The adoption of the Washington State Energy Code can be viewed as another infringement upon

our freedom of expression. It can be seen as further governmental interference with the marketplace. It can be challenged on many levels. It is, however, an honest attempt by the public and private sectors to address the real problem of the energy dilemma as it relates to the built environment.

We must view it as an obligation of the profession to address this issue on a positive and progressive basis. We must develop (and continue to develop) innovative solutions to reduce energy consumption in our buildings.



Northwest Architecture

The Cover

Energy Source. Photograph by John Jaeger.

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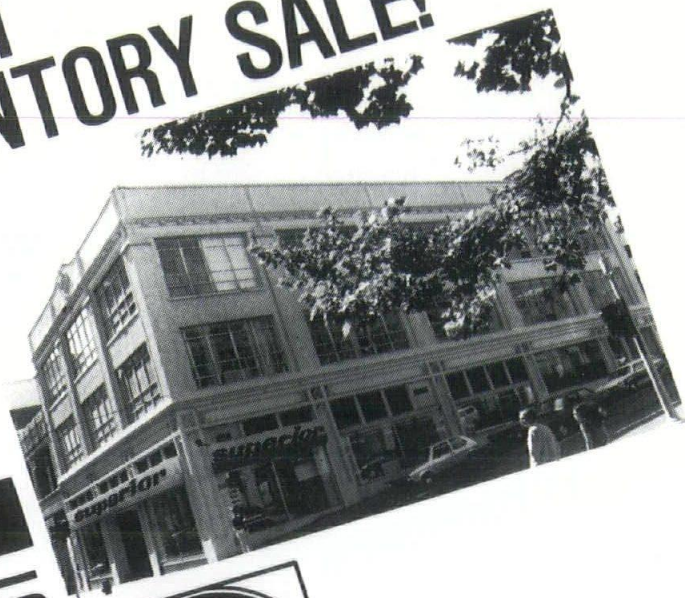
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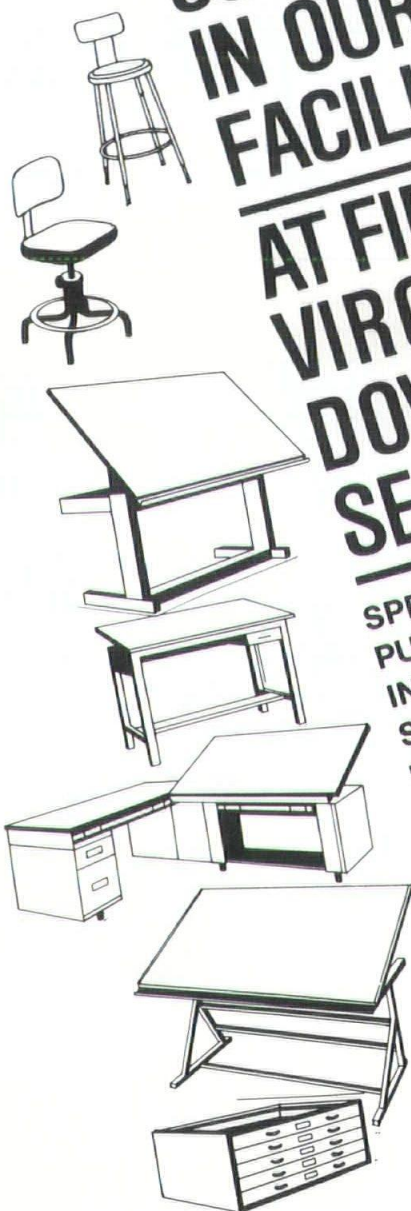
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Adopting A State Energy (Conservation) Code

by CHRISTOPHER
WOODSUM
Staff Planner
Washington State
Planning and Community
Affairs Agency

The development of the Washington State Energy Code was both a technical and political experience. The political aspect of the code development process involved pressures from different groups, industries, and individuals to influence the content of the code. The technical aspects of the code's development included the most detailed, and in some cases, complicated debate over the practical implications of new requirements on design, construction, and operation of buildings.

The State Building Code Advisory Council, responsible for developing and adopting the code, addressed both technical and political issues in the same way. The planning process, schedule, and meetings were carefully announced ahead of time to interested parties and every industry, group, and individual was given an equal opportunity to formally testify on and provide input to the developing of the State Energy Code.

A grant from the Pacific Northwest Regional Commission provided funds to conduct an

independent technical and economic analysis of the proposed new code requirements. The Consulting Energy Panel was selected after reviewing recommendations from the State Building Code Advisory Council and effected public and private sector organizations. The Panel included five energy consultants and one economist serving in a support role. The members were as follows:

Henry Romer, PhD,

Energy Consultant -
Olympia

George Tsongas, PhD,
Mechanical Engineer -
Portland

Carl Fullman, P.E.,
Mechanical Engineer -
Portland

Charles Eley, AIA,
Architect -
San Francisco

Jay McGrew, PhD,
Chemical Engineer -
Denver

John W. Lord,
Economist - Bellingham

The major contribution of the Consulting Energy Panel was in providing technical and economic justification of more strict code requirements for both residential and commercial buildings. This was accomplished through their study of the code, computer simulation, field tests on existing houses, and actual design

applications. The consulting economist evaluated data on current and projected construction costs and energy rates; resulting in an economic analysis of various conservation strategies.

During the one year development of the energy code, the State Building Code Advisory Council's energy committee held four formal technical review hearings, three official public hearings and thirteen work sessions. In addition, the full Council met eight times during that year to discuss progress on the developing code and to make decisions according to the rule-making authority delegated by the 1979 legislature. After review of hundreds of pages of technical recommendations, written testimony, consultant reports, and testimony at public hearings, the Council formally adopted a new Washington State Energy Code on May 12, 1980, with an effective date of June 30, 1980.

There is general consensus by both private and public sector groups that the new Washington State Energy Code will provide a much greater level of energy conservation than previously adopted residential energy code requirements. New

commercial construction, not previously covered; will result in significant energy savings and reduced operational costs.

After the State Energy Code was adopted, the State Energy Office conducted a series of orientation training workshops on the new code requirements at several locations throughout the state. The Energy Office was also responsible for developing a training manual on the code and is responsible for distribution of the code and providing general assistance during implementation. (Contact: Washington State Energy Office, 400 East Union, Olympia, Washington 98504, (206) 754-0700.)

The State Building Code Advisory Council will review implementation problems relating to code content during the fall of 1980. The Council plans to conduct a complete review of the code during the spring of 1981 and will consider amendments to the energy code at that time. Written comments and recommendations may be submitted at any time to: The State Building Code Advisory Council, c/o Planning and Community Affairs Agency, 400 Capitol Center Building, Olympia, Washington 98504.

New Building Designing and the State Energy (Conservation) Code

by HENRY F. ROMER, PhD
Member
Washington State Energy
Code
Energy Consulting Panel

If you are constructing or designing new buildings in Washington, you must now make them conform to the provisions of the Washington State Energy Code. The code requires that you analyze the heat loss from the building envelope and ensure that it is no greater than allowed by the Code. You are given flexibility to trade off heat losses between different building elements (walls, roofs, floors, etc.) as long as the total loss does not increase. You are even allowed to design a completely non-standard structure, if you demonstrate that the building will use no more energy in a year than a comparable structure designed directly to the Code. As appropriate in a rapidly spiraling energy cost environment, the heat loss standards in the Code are stricter than either the previous State residential energy code or the American Society of Heating, Refrigerating and Air-Conditioning Engineers' (ASHRAE) Standard 90-75. Unlike the U.S. Department of Energy's proposed Building Energy Performance Standards (BEPS),

the code is not predicated on an overall optimum of economic performance. Hence design professionals working for clients with longer term concerns over building operating costs may still find it beneficial to increase insulation levels above those required. On the other hand, buildings which do not meet the Code, besides being unapprovable, are going to be energy use dogs, with excessive heating costs.

There are three ways to design with the Code, represented by the Code chapters 4, 5 and 6. The designer or builder can pick the approach that best suits his needs and skills. On the simplest level, Chapter 6 lays out a prescriptive or "cook book" path. The designer need only check the structure category and climate zone to which he must conform and then simply read off the insulation levels required for each building element from the Code tables. In addition he must check that the design window area does not exceed the stated maximum percentages of gross wall area spelled out in the Code. That's all, there is no heat loss analysis needed, no annual energy use to determine and no computer simulation programs to run.

On the other hand the building contemplated must permit the levels of insulation required to be installed and conform to the window area requirements. Also this procedure is applicable only to low-rise residential buildings or buildings under 5,000 square feet in floor area. If one of these considerations prevents the use of this approach, the next level of complexity must be employed.

Chapter 4 of the Code outlines the procedure. In this instance the rate of heat loss for the building envelope must be calculated. The design must meet the listed heat loss maximums element by element, or must have an overall heat loss no greater than the sum of the Code allowed rates for each equivalent building element area. In essence, this means that if you need to skip on the walls, you can make it up on the roof, as long as the total answer comes out right. It is important to remember that the stated heat loss rates for walls represent an average loss for opaque wall sections and windows, not just the value for wall sections alone. There are also separate standards for double glazing and opaque wall insulation levels for residences. For a simple structure, compliance is

determined by figuring the heat loss rate for each building element (an average U) and multiplying this by the element's area. The sum of these U x A's must be no more than the sum of code required U's times the same areas.

The final compliance path provides rather complete design flexibility, but at the expense of a more detailed calculational procedure. Once the proposed design is established, the areas of building elements (walls, roofs, windows, etc.) must be determined. An annual energy usage must then be computed for that structure, assuming that each element had the heat loss rate specified in Chapter 4. Then the expected annual energy usage for the building as proposed must be shown to be no more than this figure to demonstrate compliance. Of course identical heating plants and energy sources must be used in each instance. Since the Code is concerned with envelope heat loss only, the efficiency with which energy is supplied to the interior is not a part of the calculations. Note, however, that the Code does impose minimum performance requirements on heating and cooling equipment.

The annual energy use comparison must be made using one of the more sophisticated analysis procedures now available.

Each compliance path also allows the designer to take credit for the use of solar energy for passive space heating. Those wall sections used to admit the sun and meeting the Code's provisions need not be included in the envelope heat loss analysis. In addition the Chapter 5 approach allows credit for any energy supplied to the structure from non-depletable energy sources.

While the Code's 52 pages may seem formidable at first glance, a little practice and use should allow the designer or builder to easily modify his procedures to produce complying designs. From a professional standpoint, it is well to remember why the Code is there. Buildings built to the Code's standards will save energy, contributing towards an obviously important national goal. They will also be good buys for their owners and operators with these energy savings quickly paying for any increased construction costs. Design professionals in Washington can play an important role in educating both their clients and

building officials as to the appropriateness and value of the energy standards for new buildings.

This Code is clearly only a step towards the development of structures with dramatically lowered energy use. The federal BEPS are now being reworked for eventual adoption in 1981 or 1982. They will supersede this Code and will in all

likelihood be stricter. New conservation techniques and products will also emerge in these years which should help designers meet these tighter standards. It will be an exciting and challenging exercise to radically lower the levels of building energy use while still providing the customer with comfort, value and aesthetics. Meeting the

requirements of this and future energy codes is a task the design community should embrace with a spirit of innovation. The result will be truly better homes and work places in the next decade.

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Electricity As An Energy Source

by JAMES M. BOLDT
Executive Director
Washington PUD
Association

According to Dr. Keith Davis, a professor at Arizona State University, a business or industry can be likened to a large rock in a stream of public expectation. As the stream moves around the rock, the rock is shaped by its pressure and force. If the rock blocks the stream, it is either pushed aside or the stream takes a new course and leaves the rock sitting completely ignored. The electric utility industry would do well to consider this analogy carefully. The foundation of its position is all the more precarious for being firmly planted in shifting sands. Public expectations of the electric industry have changed drastically in the last few years and will continue to change in the foreseeable future.

Up until the last decade, the average official of a representative electric utility, public or investor-owned, had a pretty good idea of what was expected of him. He was to encourage the widest possible use of that servant of the people — electricity — and to take any and all necessary steps to ensure that supply kept pace with demand. If there was any need to justify the wisdom of this approach, he need not look far. His own rate

department would be quick to assure him that increasing the level of demand for electricity would allow the utility to capture the benefits of economies of scale and permit its customers to realize lower costs per kilowatt hour. Utilities throughout the nation responded by hiring home economics teachers to instruct harried housewives in the art of liberating themselves from household drudgery by plugging in washers, dryers and self-cleaning ovens. Many utilities established appliance repair divisions that continue to operate today.

Although an aggressive advertising campaign increased demand for the electric industry's product, it would be foolish to assume that it did anything more than stimulate a public appetite for well heated and cooled homes and labor-saving devices that was already voracious. Contractors who built all-electric homes earned kudos from cost-conscious homebuyers as well as medallions from the local utility. Insulation was a big selling point for practioners of primal scream therapy and the neighbors of budding rock musicians. It did not become a standard part of the vocabulary of the average homebuyer in the Pacific Northwest until the early part of the last decade, when utilities in this region began the

transition from cheap hydro to more expensive thermal generating facilities.

That this transition has been marked by acrimonious debate and bitter recriminations is hardly a surprise to anyone who has followed the newspapers over the last ten years and read about or heard the resulting howls of outrage from environmentalists accused of obstructionism, politicians and bureaucrats accused of regulatory overkill, consumers accused of gluttony, and utility officials accused of everything from avarice to mismanagment to venality. This fingerpointing-rush-to-judgement has been compared to arguing over deck chairs on the Titanic. The undeniable truth is that our society is heavily dependent upon electricity, that the cost of generating electricity has risen dramatically in the last fifteen years, and that this region and many other parts of the country face serious electrical shortages in this decade. The question of how we came to find ourselves in this position lends itself to a number of interesting conspiracy theories. It also tends to obscure the more important issue of how we are going to extricate ourselves from this dilemma.

Proposing solutions to our energy problems is a game that anyone can play

and is fun for age groups from eight to eighty. The diversity of suggested solutions is limited only by boundaries of the player's imagination and his or her originality. Unfortunately, a number of players, who have gone directly to jail without passing Go and collecting their \$200, are willing to knock the board over to gain control of their local utility. That they have not succeeded is less a testament to the popularity of the electric industry than it is a reflection of America's innate sense of fair play.

The electric industry is at an important crossroads; it can continue on the path it has traditionally followed or it can recognize the dimensions of its problems and seek to protect its position in the marketplace by offering a range of new services its customers obviously want and need.

It is foolish to ignore the fact that the demand for electricity is growing, albeit at a slower rate than most utilities had forecast. It is

equally absurd to pretend that this demand can be supplied without constructing additional generating capacity. Those that deny these realities and oppose the construction of additional central generating plants are simply sticking their heads in the sand.

By the same token, the electric industry can hardly afford to ignore the economics of conservation and alternative energy resources. The Tennessee Valley Authority has provided 80,000 interest-free loans for attic insulation to consumers of its wholesale power purchasers. TVA's research shows that the first 27,000 homes insulated under this program provide an annual savings of 50.5 million kilowatt hours. This insulation is providing "generating capacity" at a cost of \$178 per kilowatt, compared to more than \$1,000 per installed kilowatt at TVA's nuclear plants. Alternative energy resources are or will be

competitive in many parts of the country in the near future.

Critics of the nontraditional operation of electric utilities argue that the industry can hardly be expected to take steps to lower demand for its product. It is an argument that is not without validity. Congress required automobile manufacturers to produce more efficient automobiles with better fleet averages for gas mileage. No one has suggested that this is properly the responsibility of oil companies or that service stations should be required or expected to retrofit existing automobiles or promote alternatives to the internal combustion engine. For the same reason, Congress placed some of the onus of conserving energy on architects and home-builders in the form of the Building Energy Performance Standards. While BEPS in its latest incarnation is a fiasco from the standpoint of almost everyone except the gas and oil companies in the Pacific Northwest, where its implementation would actually result in greater consumption of oil and natural gas than is presently the case, the concept is sound and long overdue.

Electric utilities hesitant to broaden the range of their services would do well to consider the fate of the village blacksmith, the

buggy whip manufacturer, and the railroads before they discard the option out of hand, however.

According to Theodore Levitt, in an article in the September-October 1975 issue of the Harvard Business Review, "The railroads did not stop growing because the need for passenger and freight transportation declined. That grew. The railroads are in trouble today not because the need was filled by others (cars, trucks, airplanes, even telephones), but because it was not filled by the railroads themselves. They let others take customers away from them because they assumed themselves to be in the railroad business rather than in the transportation business. The reason they defined their industry wrong was because they were railroad-oriented; they were product-oriented instead of customer-oriented."

Levitt then focused his sights on utilities. "Who says that utilities have no competition", he asked. "They may be natural monopolies now, but tomorrow they may be natural deaths. To avoid this prospect they too will have to develop fuel cells, solar energy and other power sources. To survive, they themselves will have to plot the obsolescence of what now produces their livelihood."

This does not mean restricting new or

additional loads as some companies have proposed. This policy alone is simply a stopgap measure. While it may be temporarily necessary, in the long run it represents nothing more than a concession to those who are in effect saying "Pull up the gangplank — I'm aboard." What utilities must do to survive is to offer their customers assistance in insulating their homes and purchasing and installing devices that can make efficient and economical use of alternative energy resources. PUDs covered by the National Energy Conservation Policy Act lobbied for and received permission to do just that recently. Clark county PUD is also offering architects technical assistance in designing buildings to take advantage of passive solar heating and to determine the practicality of active solar heating and cooling systems.

I cite these examples not as proof that we are already doing everything we can, but as signs that this industry is not too hidebound to adjust. Darwin observed that nature's message to its kingdom is "Adapt or Die." The warning is no less applicable to electric utilities. The industry can and must adapt or it will find itself waddling down its traditional path in the illustrious company of the economic equivalents of the dinosaur and dodo.

Building Performance and The Washington State Energy Code

by CHARLES ELEY, AIA
Member
Washington State Energy
Code
Energy Consulting Panel

As of July 1, 1980, Washington State joined the ranks of 46 other states by adopting an energy (conservation) code.

The Washington code, like most of the others, is based on ASHRAE standard 90-75, largely a prescriptive standard. With codes of this type, total building performance is not considered but rather minimum levels are specified for the various components within the building, i.e., the building envelope, HVAC systems, lighting, etc.

With regard to the building envelope, the code largely serves to reduce conductive heat losses by requiring minimum levels of insulation, and in some cases, maximum areas of glass. The code does not consider either the heat gain effects of solar radiation or the capacitance effects of thermal mass within the building shell.

Since the code is not performance based, it is difficult to know the precise energy savings which will result from its

implementation. These savings can be estimated, however, by taking prototypical house designs, upgrading them to comply with the code, and calculating the amount of energy they would be expected to use.

Our office made such a study of the code as part of our work on the Energy Consulting Panel. The purpose of that study was twofold: first, to determine a range of building energy performance which could be expected from implementation, and second, to determine the effects of glass orientation, shading thermal mass, and building color on single family home energy consumption in the Seattle area.

Three prototype houses were used in the analysis: a typical one-story 1,593 square foot rambler with attached two-car garage, the same house modified for passive solar applications and a modified version with a compact shape and uniform glass distribution.

The three houses, with several variations to each, were modeled on the DOE 2.1 computer program on-line at Lawrence Berkeley Laboratory.

The annual property line energy estimates for the three prototypes, in the various configurations,

ranged from about 27,900 Btu per square foot to 30,300 Btu per square foot.

The source energy estimate for the prototypical buildings, assuming electric generation efficiencies of 0.33, ranged from about 77,800 to 84,500 Btu per square foot.

These estimates are about triple what would be permitted if the Federal Building Energy Performance Standards were implemented. The BEPS budget for single family homes in Seattle, for instance, is 26,500 Btu per square foot. All of the above figures are for Seattle and include space heating only.

These estimates could be reduced considerably, however, if more efficient heating equipment were used. For instance, if the electric resistance heating system, assumed in all the prototypes, were replaced with an efficient heat pump with a coefficient of performance of 2.5, then the performance estimates would be reduced to the range of 31,100 to 33,800 Btu per square foot—still higher than BEPS.

The code for residential buildings was modified after the conclusion of our studies, so our estimates are now somewhat off. The order of magnitude,

however, will remain the same.

Obviously, if BEPS is implemented, the State of Washington will have to upgrade the standards significantly for greater energy savings. In order to do this, the code must begin to consider issues other than insulation and weather stripping.

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CHELAN, WASH. -- New Jail. In schematics. Owner: Chelan County, Courthouse Annex, Wenatchee, WA 98801 (509) 663-2101. Architect: Walker, McGough, Foltz, Lyerla, N. 120 Wall St., Seattle, WA 99210 (509) 838-8681.

CHELAN, WASH. -- "Chelan Hills Sewers" - Installing Sewer Collection System to Serve 470 +/- Residential Lots. Design Consultant to be selected. In preliminary studies. Project to be bid early spring 1981. Estimated start date: Spring 1981. Estimated completion date: Winter 1981. Estimated cost: \$2 million. Owner: City of Chelan, P.O. Box 1669, Chelan, WA 98816 (509) 682-4037.

COLVILLE, WASH. -- Site Planning Services for the Colville Ranger Station. Seeking funding; Architect/Engineer to be selected. Owner: Contracting Officer, U.S. Forest Service, P.O. Box 3623, Portland, OR 97208 (503) 221-3581.

DALLESFORT, WASH. -- UPDATE: Public Barge Docking Facility. Awaiting permit. Owner: Klickitat Port District No. 1, P.O. Box 426, Bingen, WA 98605 (509) 493-1655.

EDMONDS, WASH. -- Increasing Bed Capacity from 193 to 223 at Hospital. Includes furnishing and remodeling of ancillary units. Awaiting approvals. Estimated cost: \$6.5 million. Owner: Stevens Memorial Hospital, 21600 - 76th Ave. W., Edmonds, WA 98020 (206) 774-0555.

EVERETT, WASH. -- Subregion Interceptor Sewer Program. Includes an interceptor system (sewers and pump stations) to carry sewage from South Everett to the treatment plant. E.I.S. submitted. Estimated cost: \$18.5 million (1979 dollars). Owner: City of Everett, Clair Olivers, Engineer, 3200 Cedar St., Everett, WA 98201 (206) 259-8811.

EVERETT, WASH. -- 30,000 Sq. Ft. Casino Center Office Complex. Includes several buildings with wood frame and brick veneer exterior. In working drawings. Owner c/o Architect: Millenaar/Wicks & Associates, 6713 - 40th St. N.E., Marysville, WA 98270 (206) 659-7718.

EVERETT, WASH. -- Street Improvements and Widening of Roadway Along Harde son Road from Casino Road, South to City Limits. Issued Final Declaration of Nonsignificance. Owner: City of Everett, 3200 Cedar St., Everett, WA 98201 (206) 259-8821.

FEDERAL WAY, WASH. -- Deferred Maintenance: Maintenance Repairs (Roofing, Painting, Heating, Etc.) at Various Schools. Architect/Engineer to be selected. In preliminary planning. Project to be bid June 1981. Estimated start date: May 1981. Estimated completion date: Summer 1983. Estimated cost: \$3.7 million. Owner: Federal Way School District No. 210, 31455 - 28th Ave., S., Federal Way, WA 98003 (206) 941-0100.

FEDERAL WAY, WASH. -- New Hospital: Part of the Federal Way Health Care Planning Study. Plans will be formulated after completion of study in one year. Owner: Federal Way Community Council, 30435 - 23rd S.W., Federal Way, WA 98003 (206) 839-3453.

HOQUIAM, WASH. -- UPDATE: Barrier Free Interim Plan for High School and Elementary School. In working drawings; project to be bid no later than mid-September 1980. Owner: Hoquiam School District No. 28, 312 Simpson, Hoquiam, WA 98550 (206) 532-6543.

HOQUIAM, WASH. -- Reconstruction of Aberdeen and Pacific Avenues. In preliminary plans; project to be bid in late 1981. Owner: City of Hoquiam, 609 - 8th St., Hoquiam, WA 98550 (206) 532-5700.

HOQUIAM, WASH. -- Bridge Over the Hoquiam River at Earley Way. In preliminary plans; project to be bid. Estimated cost: \$25 million. Owner: City of Hoquiam, 609 - 8th, Hoquiam, WA 98550 (206) 532-5700.

ISSAQUAH, WASH. -- Pine Lake Restoration. Design Consultant being selected. Owner: Metro, Gail McCarteny, Consultant Services Division, 5th Floor, 821 Second Ave., Seattle, WA 98104 (206) 447-6639.

KENNEWICK, WASH. -- UPDATE: 2 New Elementary Schools. In preliminary plans. Project to be bid August 1981. Owner: Kennewick School District No. 17, 200 S. Dayton St., Kennewick, WA 99336 (509) 582-8233. Architect: Carson & Keseterson, 128 Vista Way, Kennewick, WA 99336 (509) 783-5444.

KENT, WASH. -- UPDATE: Green River Bridge. Awaiting E.I.S. and permit. Owner: Washington State, Dept. of Transportation, Highway Administration Building, Olympia, WA 98504 (206) 753-6005.

KETTLE FALLS, WASH. -- Site Planning Services for the Kettle Falls Ranger Station. Seeking funding; Architect/Engineer to be selected. Owner: Contracting Officer, U.S. Forest Service, P.O. Box 3623, Portland, OR 97208 (503) 221-3581.

LA CONNER, WASH. -- 3-Phase Restoration and Renovation in a National Historic District. Includes remodeling the Old Fire Hall, Legion Hall, and the Town Hall at Second and Commercial Streets. Seeking funding. Owner: Town of La Conner, P.O. Box 400, La Conner, WA 98257 (206) 466-3125.

METALINE FALLS, WASH. -- Site Planning Services for the Sullivan Lake Ranger Station (R6-80-400N). Architect/Engineer to be selected. Owner: Contracting Officer, U.S. Forest Service, P.O. Box 3623, Portland, OR 97208 (503) 221-3581.

MOUNT VERNON, WASH. -- UPDATE: 100,000 Sq. Ft. Research Building. Includes laboratory, engineering facilities, office building and outdoor test track in teh Bayview area. Project expected to be bid in Dec. 1980. Owner: Paccar, Inc., 777 - 106th N.E., Bellevue, WA 98004 (206) 455-7400. Architect: Basetti, Norton, Miller & Rothchild, 2021 - 3rd Ave., Seattle, WA 98123 (206) 622-7725.

NEWPORT, WASH. -- Site Planning Services for the Newport Ranger Station (R6-80-400N). Architect/Engineer to be selected. Owner: Contracing Officer, U.S. Forest Service, P.O. Box 3623, Portland, OR 97208 (503) 221-3581.

PASCO, WASH. -- Alcohol Fuel Plant. In feasibility study and site selection. Est. start date: 1st quarter 1981. Est. cost: \$70 million. Owner: Morris Esmiol, Omega Fuels, 1135 E. Hillsboro, Pasco 99301 (509) 547-1628.

PORT ANGELES, WASH. -- 2,000 Sq. Ft. Addition and Remodel to a Savings and Loan Building. Finished programming. Owner: Port Angeles Savings and Loan, 101 W. Front, Port Angeles, WA 98362 (206) 452-8981. Architect: B.J.S.S., 1036 E. 1st St., Port Angeles, WA 98362 (206) 452-3844.

PORT ANGELES, WASH. -- 12,000 Sq. Ft. Administration Building. Project to be bid Sept. 1980. Owner: Port of Port Angeles, Foot of Cedar, Port Angeles, WA 98362 (206) 457-8527. Architect: B.J.S.S., 1036 E. 1st St., Port Angeles, WA 98362 (206) 452-3844.

RICHLAND, WASH. -- New Auditorium at Columbia High School. Includes auditorium and addition to library and site work. Project to be bid December 1980. Estimated cost: \$3.7 million. Owner: Richland School District, 615 Snow Ave., Richland, WA 99352 (509) 946-6106. Architect: Walker, McGough, Foltz, Lyerla, N. 120 Wall St., Box 1482, Spokane, WA 99210 (509) 838-8681.

REDMOND, WASH. -- Education Center. In schematics. Owner: Safeco Insurance Company of America, Safeco Plaza, Seattle, WA 98105 (206) 545-5000. Architect: Walker, McGough, Foltz, Lyerla, N. 120 Wall St., Box 1482, Spokane, WA 99210 (509) 838-8681.

REPUBLIC, WASH. -- Site Planning Services for the Republic Ranger Station (R6-80-400N). Architect/Engineer to be selected. Owner: Contracting Officer, U.S. Forest Service, P.O. Box 3623, Portland, OR 97208 (503) 221- 3581.

SEATTLE, WASH. -- 130 - 160-Unit Condouminium Building at 103rd and Meridian. Project holding; seeking financing. Estimated cost: \$8 million. Owner c/o Architect: Runyon/Ramsing, 12337 - 30th Ave. N.E., Seattle, WA 98125 (206) 363-2581.

SEATTLE, WASH. -- 3-Story Office Building Located at Northgate Across from the Park and Ride Lot. In working drawings. Owner c/o Architect: Runyon/Ramsing, 12337 - 30th Ave. N.E., Seattle, WA 98125 (206) 363-2581.

SEATTLE, WASH. -- "Roanoke Reef" - Moorage for 20-Houseboats and 14 - Pleasure Boats. Phase II to include parking for 32-cars and 9-row houses to be built on a 14,000 sq. ft. upland site. Demolition of existing reef to begin soon. Bids to be called in 2 weeks. Estimated start date: August 1980. Phase II: to be constructed at completion of Phase I. Estimated start date: Summer 1981. Owner: Lucille T. Flanaga, 13731 Northwood Road N.W., Seattle, WA 98177 (206) 364-0389. Architect: Ibsen, Nelson, & Associates, 2121 - 5th Ave., Seattle, WA 98121 (206) 624-3111.

SEATTLE, WASH. -- Outdoor Recreation Area for Medical Center. Includes rehabilitation of the Chapel Courtyard and creation of a children's play area. Architect retained. Estimated start date: spring 1981. Owner: Children's Orthopedic Medical Center, 4800 Sand Point Way N.E., Seattle, WA 98105 (206) 634-5128. Architect: RCA Partnership, 814 E. Pike, Seattle, WA 98122 (206) 324-8420.

SEATTLE, WASH. -- "132nd Square Park" - Parking, Ballfields, Picnicking Facilities, and Restrooms. In preliminary plans; project to be bid October - November 1980. Estimated start date: March 1981. Estimated completion date: June 1981. Estimated cost: \$110,000. Owner: King County Parks Dept., 709 Smith Tower, Seattle, WA 98104 (206) 344-4232. Design Consultant: Robert Shinto, 311 - 1st S., Seattle, WA 98104 (206) 624-9812.

SEATTLE, WASH. -- UPDATE: "Waterview" - A 46-Story Apartment and Office Building with a Below-Grade Retail Plaza and Theatre Facility. Located on the block bounded by Wall and Vine Streets, and Fourth and Fifth Avenues. Includes a monorail stop. In pre-application phase; E.I.S. submitted. Awaiting approvals. Developer: Martin Selig, 100 W. Harrison, Seattle, WA 98119 (206) 284-7374. Architect: Chester L. Lindsay, 1711 - 12th, Seattle, WA 98122 (206) 329-6000.

SEATTLE, WASH. -- Mount St. Helens National Park Proposal. In study. Owner: U.S. Forest Service, 1601 - 2nd, Seattle, WA 98101 (206) 442-5400.

SEATTLE, WASH. -- Rehabilitation, Programmatic Improvements, and Energy-Efficiency Improvements for the Loyal Heights, Queen Anne, Alki and Hiawatha Community Centers. Project to be bid in parts - Nov. 1980, and Jan. 1981. Estimated completion date: March 1982. Owner: City of Seattle, Dept. of Parks and Recreation, 100 Dexter Ave. N., Seattle, WA 98109 (206) 625-5371.

SEATTLE, WASH. -- "Colman Park Walkways Project" - Improving Drainage and Walkways. In design development; project to be bid November 3, 1980. Estimated cost: \$40,000 - \$50,000. Owner: City of Seattle, Dept. of Parks and Recreation, 100 Dexter Ave. N., Seattle, WA 98109 (206) 625-5371.

SEATTLE, WASH. -- UPDATE: Mount Baker Sailing and Rowing Facility. In preliminary plans; project to be bid in 1982. Owner: City of Seattle, Dept. of Parks and Recreation, 100 Dexter Ave. N., Seattle, WA 98109 (206) 625-2977.

SEATTLE, WASH. -- Addition to Hospital. Architect to be selected. Owner: Paul Tucker, Administrator, Highline Community Hospital, 16200 - 8th S.W., Seattle, WA 98166 (206) 244-9970.

SEATTLE, WASH. -- Consolidated Log Sorting and Storage Facility at 4540 W. Marginal Way S. Awaiting Shoreline Management Permit. Owner: Seaboard Lumber Co., 4540 W. Marginal Way, Seattle, WA 98106 (206) 937-5600.

SEATTLE, WASH. -- UPDATE: Remodel and Addition to Administration Building for Education Center Use at Woodland Park Zoo. Beginning design development; project to be bid October 1980. Owner: Seattle Parks Department, Don Harris, 100 Dexter Ave. N., Seattle, WA 98109 (206) 625-5013. Architect: Church-Suzuki, 317 - 17th W., Seattle, WA 98144 (206) 323-4681.

SOUTH BEND, WASH. -- 300 Ft. Long, 290 Sq. Ft., Bay Center Bridge. Project holding; awaiting funding in October 1980. Estimated cost: \$310,000. Owner: Pacific County, Public Works Dept., Courthouse, South Bend, WA 98586 (206) 875-6541.

SPOKANE, WASH. -- "Orchard Gardens 2nd Addition" - 4.7-Acres of Single Family Dwellings. Awaiting E.I.S. Owner: Crosby International Inc., c/o Wes Crosby, N. 1506 Pines Road, Spokane, WA 99206 (509) 922-2200. Surveyor: Dunsmore Land Surveyors, N. 1004 Pines Road, Spokane, WA (509) 924-9748.

SPOKANE, WASH. -- "Eastlane Subdivision No. 4" - 2.75-Acres of Single-Family Dwellings. Awaiting E.I.S. Owner: Harold Lundy, S. 1115 Cedar, Spokane, WA 99204. Surveyor: Masgai Land Surveying, Inc., W. 520 Sharp, Spokane, WA 99201 (509) 327-7793.

SPOKANE, WASH. -- "H.A.V. Addition" - 5.7-Acres of Single-Family Dwellings. Awaiting E.I.S. Owner: Victor Renz, S. 1023 Adams Road, Veradale, WA 99037 (509) 926-2360. Surveyor: Dunsmore Land Surveyors, N. 1004 Pines Road, Spokane, WA 99216 (509) 924-9748.

SPOKANE, WASH. -- 94-Manufactured Home/Condominium Sites on 13-Acres. Awaiting approvals. Owner: James A. Cripe, Route 14, Box 36, Spokane, WA 99210 (509) 456-8259 or (814) 868-2743.

SPOKANE, WASH. -- 8-Warehouse Structures on 7-Acres. Located between Park Road and Ella Road. Awaiting approvals. Owner: Lyle L. Johnson, N. 502 Glenn Road, Spokane, WA 99206 (509) 924-8173.

SPOKANE, WASH. -- "201 Wastewater Plan". In study. Owner: City of Spokane, N. 721 Jefferson St., Spokane, WA 99201 (509) 456-3600. Engineer: Collins, Ryder & Watkins, 3815 - 100th St., Suite 8, Tacoma, WA 98499 (509) 582-0470.

SPOKANE, WASH. -- Mining, Crushing and Processing Facility on 40-Acres. Located 1,100 ft. northwest of Andrus Road and Grove Road Intersection. Awaiting approvals. Owner: Eucon Corporation, Park Place Lewis Clark, P.O. Box 1323, Lewiston, ID 83501 (208) 743-1511.

TACOMA, WASH. -- Harbor Service Craft Facilities (Station 15). Includes fire station, Ladder Co., Engine Co., Rescue Unit and piers and floats for fire boat. Architect/Engineer to be selected; seeking funding. Owner: City of Tacoma, 901 Fawcett, Tacoma, WA 98402 (206) 593-4433, and the Port of Tacoma, Sitcum Waterway, Tacoma, WA 98401 (206) 383-5841.

TACOMA, WASH. -- 8-Transit Centers. Design Consultant being selected. Owner: Mary Jo Parker, Director, Transit Development, 1235 So. Sprague Ave., Tacoma, WA 98405 (206) 593-4525.

TACOMA, WASH. -- "Midland Sewer ULID 80-2" - Sanitary Sewers. In preliminary plan stage; awaiting approvals. Project to be bid. Estimated start date: 1980. Estimated completion date: 1981. Estimated cost: \$3.6 million. Owner: P.C. Utilities Dept., 1044 Co-City Bldg., Tacoma, WA 98402 (206) 593-4157. Engineer: Consoer Townsend and Associates, 1113 A Street, Tacoma, WA (206) 572-9850.

TOPPENISH, WASH. -- Downtown Revitalization Plan. A study of the downtown business district. Planning in initial phase. Owner: Yakima Valley Conference of Governments, Courthouse, Yakima, WA 98901 (509) 575-4000.

WALLA WALLA, WASH. -- New Jail. In schematics. Owner: Walla Walla County, 318 W. Main, Walla Walla, WA 99362 (509) 529-1273. Architect: Walker, McGough, Foltz, Lyerla, N. 120 Wall St., Box 1482, Spokane, WA 99210 (509) 838-8681.

WALLA WALLA, WASH. -- Elementary School. In design development. Owner: Walla Walla School District No. 140, 364 S. Park, Walla Walla, WA 99362 (509) 525-6042. Architect: Walker, McGough, Foltz, Lyerla, N. 120 Wall St., Box 1482, Spokane, WA 99210 (509) 838-8681.

WALLA WALLA, WASH. -- Phase II: Penitentiary Revision. Includes new life support systems, buildings, etc. In schematics; funding secured. Estimated cost: \$20 million. Owner: Washington State Penitentiary, Walla Walla, WA 99362 (509) 525-3610. Architect: Walker, McGough, Foltz, Lyerla, N. 120 Wall St., Box 1482, Spokane, WA 99210 (509) 838-8681.

COTTAGE GROVE, ORE. -- UPDATE: Renovation of High School. In conceptual planning. Owner: South Lane School District, 400 Main St., Cottage Grove, OR 97424 (503) 942-3381.

THE DALLES, ORE. -- 1,500 Sq. Ft. Addition to an Office Building at West 9th and Walnut. Includes a wood frame and truss joist floor and roof. Beginning working drawings. Owner c/o Architect: Zanis/Zarins, 1645 N.W. 25th St., Lincoln City, OR 97367 (503) 994-2517.

DEPOE BAY, ORE. -- 1,400 Sq. Ft. Addition and Alteration to Clothing Store. Includes a wood frame. Owner c/o Architect: Zanis/Zarins, 1645 N.W. 25th St., Lincoln City, OR 97367 (503) 994-2517.

FLORENCE, ORE. -- Enlargement of Sewage Treatment Plant. Engineer not yet selected; in preliminary discussion stage. Owner: City of Florence, City Hall, Florence, OR 97439 (503) 997-3436.

FLORENCE, ORE. -- 200-Unit Mobile Home Complex. Awaiting approvals. Developer: Sunwest Development Co., Tom Laharty and Virginia Speirs, 4625 W. 11th Ave., Eugene, OR 97402 (503) 686-1637.

GRANTS PASS, ORE. -- 3,600 Sq. Ft., 1-Story, Bank Building. Includes a wood frame and exterior. In working drawings; contract to be negotiated. Estimated cost: \$175,000. Owner: U.S. National Bank of Oregon, 400 S.W. 6th, Grants Pass, OR 97526 (503) 474-1121. Architect: White/Zampbell, 1632 N.W. 6th St., Grants Pass, OR 97526 (503) 479-4514.

MONMOUTH, ORE. -- Traffic Safety Study. Engineers being selected. Owner: Ronald S. Peterson, Monmouth City Manager, 151 W. Main St., Monmouth, OR 97361 (503) 838-0722.

PORTLAND, ORE. -- Branch Office Bank at 111th and N.E. Halsey Street. Awaiting approval. Owner: Pacific First Federal Savings and Loan Assoc., 11th and Pacific, Tacoma, WA (206) 383-2511.

PORTLAND, ORE. -- Office/Restaurant Building Expansion at Portland-Hillsboro Airport. Construction to start 1981. Estimated cost: \$708,000. Owner: Port of Portland, Engineering Dept., 700 N.E. Multnomah, Portland, OR 97232 (503) 231-5000.

PORTLAND, ORE. -- National Hydroelectric Power Study (NHS) - Covering the Pacific Northwest Region Among Others. The study includes defining needs for hydroelectric power, and determining the feasibility of increasing capacities through new sites, added generation facilities and upgrading existing systems. The report will be completed in October 1981 - it is currently open for public hearings. Owner: Dept. of the Army, North Pacific Division, Corps of Engineers, P.O. Box 2870, Portland, OR 97208 (503) 221-6000.

PORTLAND, ORE. -- Improve Low-Level Dock at Terminal 1. Construction to start in 1981 - 1982. Estimated cost: \$1 million. Owner: Port of Portland, Engineering Dept., 700 N.E. Multnomah, Portland, OR 97232 (503) 231-5000.

PORTLAND, ORE. -- New Industrial Park Development. Phase I - construction to start in 1982 with an estimated cost of \$1 million. Phase II - construction to start in 1983 with an estimated cost of \$1 million. Owner: Port of Portland, Engineering Dept., 700 N.E. Multnomah, OR 97232 (503) 231-5000.

PORTLAND, ORE. -- Columbia Slough Bridge. Construction to start in 1981. Estimated cost: \$666,000. Owner: Port of Portland, Engineering Dept., 700 N.E. Multnomah, Portland, OR 97232 (503) 231-5000.

PORTLAND, ORE. -- Construct Cul-de-Sac South of Oregon Transfer, North Rivergate. Construction to start in 1981. Estimated cost: \$182,000. Owner: Port of Portland, 700 N.E. Multnomah, Portland, OR 97232 (503) 231-5000.

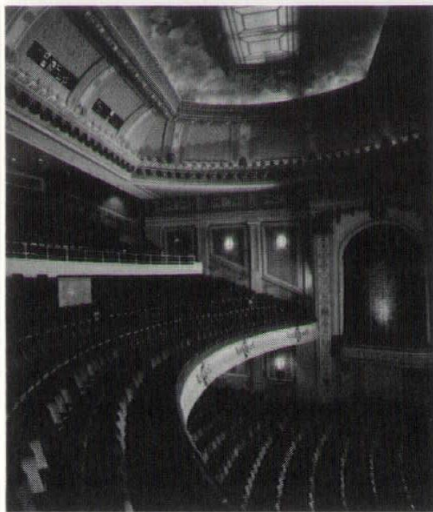
SALEM, ORE. -- Keiser Water Supply System. Financing secured; project will be bid as new pipes and wells are constructed. Owner: Keiser Water District, Marion County Courthouse, Salem, OR 97301 (503) 393-1608. Engineer: James M. Montgomery, 3276 Commercial St. S.E., Salem, OR 97302 (503) 585-2362.

Awards

Central Washington Chapter, American Institute of Architects

Four Yakima area projects were chosen for Excellence of Architecture Awards by the Central Washington Chapter, American Institute of Architects. The first awards program in eleven years, the occasion was a high point of the chapter's "Celebration of Architecture 1979". The awards program will be on display throughout Central Washington for several months and will be available in either slide show form or mounted displays to organizations.

Jurors were David Scott, FAIA, Pullman; Gerald Adkins, AIA, Spokane, and Alan Liddle, FAIA, Tacoma. The jury was explicit in expressing the giant strides architecture in the region had taken in recent years.



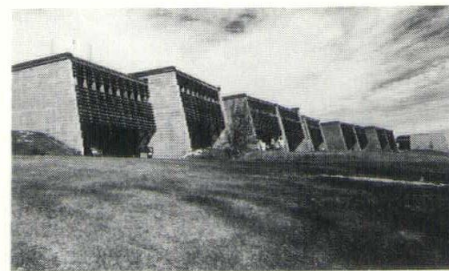
THE CAPITOL THEATRE, gutted by fire, was cited for diligence in the pursuit of exacting detail for "total restoration" with a revived craftsmanship of a by-gone era. Architects were Paddock & Hollingberry with Skilling, Helle, Christansen and Robertson, structural engineers; Valentine, Fisher & Tomlinson, mechanical engineers, and Towne, Richards & Chaudiere, Inc., acoustical consultants.



THE RESIDENCE of Dr. and Mrs. G. Douglas Romney was noted as possibly the finest totally integrated and designed passive solar residence in existence. Architect Rod Knipper, AIA, of the Knipper Dunn Partnership was cited for excellence in the design of interesting open spaces, room arrangements and full use of site orientation. Glenn Ward was consulting mechanical engineer; Donald R. Kramer & Associates, Structural Engineering Consultant; M.F. McDonald Constuction contractor.



THE LYON OFFICE BUILDING, designed by Doudna Williams Architects, was awarded a Design of Excellence for sensitive detailing and use of materials plus a friendly spacious and yet private working climate. Consultants included Atwood-Hinzman, structural engineers, Simco Mechanical and Evans Electric.



THE HILLTOP APARTMENTS, Selah, designed by the Knipper Dunn Partnership for owners Dain Paulson and Bill Douglas, was cited for a warm, intimate atmosphere with a basic economical solution. Also noted was the panoramic southern view with scientifically designed solar sun screening. Consultants included: Pat Conley, Electrical Consultant; Knipper-Dunn, Energy Planners; Van Hees, Contractor; Mary Randlett, Photographer.

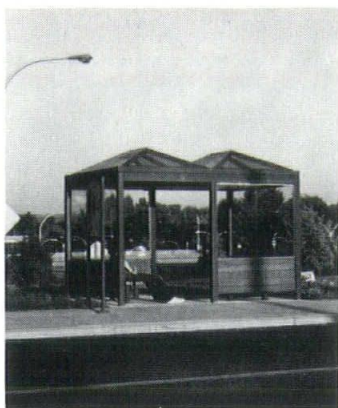
Exhibition

Exhibition Celebrating Architecture of the 70's

The Washington Council, American Institute of Architects' exhibit program, "An Exhibition Celebrating Architecture of the 70's", continues to tour the state. Featured in this issue are the seven projects relating to communications and transportation.

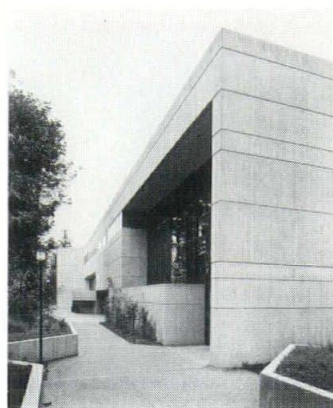
The jurors who selected the projects for inclusion in the exhibition program felt that "It is important that significant public buildings achieve a high degree of excellence. These projects attained this level of achievement and the state and public should continue to demand this level of work in major construction. Many of these buildings will remain as quality examples of the best in the past when the 70's are long gone.

For more information on "An Exhibition Celebrating Architecture of the 70's" contact the Washington Council office in Olympia at (206) 943-6012.



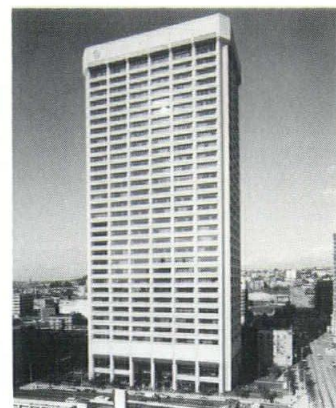
METRO TRANSIT PASSENGER SHELTERS in Seattle required a high level of design quality that would impart a strong transit identity. The shelters provide for maximum off-site preparation and are designed for portability of complete modules. The shelter system (approximately 1,000 units) provide for easy maintenance were designed to be as vandal resistant as possible.

Architect: TRA; Owner: Metro; Contractor: Sun-Up Construction, Inc.



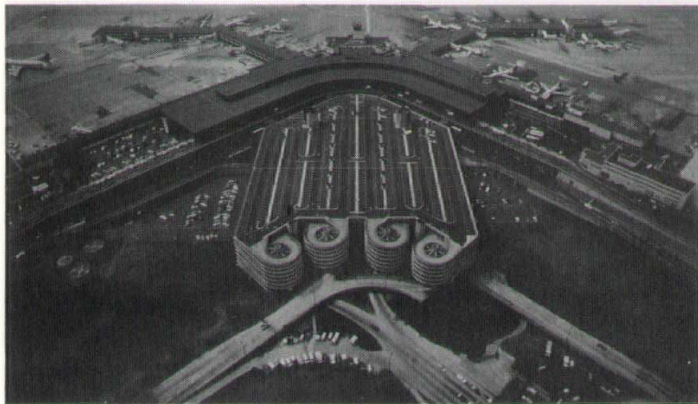
THE EVERGREEN STATE COLLEGE COMMUNICATIONS LABORATORY located on the Olympia campus provides rehearsal and performance facilities for students of the performing arts. Circulation paths and public lobby spaces have been employed to define a carefully organized scheme and to orient the building to the densely wooded setting. To accommodate the full range of activities required for music, theater, dance and television, as well as faculty offices and services areas, a highly complex and technical group of spaces was required.

Architect: Walker/McGough/Foltz/Lyerla, P.S.; Owner: State of Washington; Contractor: Jones & Roberts Company



THE 1600 BELL PLAZA building in Seattle rises 33 stories, has 786,000 sq.ft. and will ultimately house 3,350 employees of Pacific Northwest Bell. The building's amenities include a landscaped brick plaza with terraces and walkways, adjacent reflecting pool, and cedar benches for warm-weather lunching and relaxing. A number of features have been included to reduce operating costs, including a central mail delivery with vertical conveyor belts to each floor, fully automated. The most sophisticated aspect of the building is the computer-controlled environmental and life safety systems. Heating, lighting, and air-conditioning are interlocked and monitored by computer.

Architect: John Graham and Company; Owner: Pacific Northwest Bell Telephone Co.; Contractor: Hoffman Construction Co.



SEA/TAC INTERNATIONAL AIRPORT major terminal expansion program, completed in 1972-73 incorporated the original 1949 building and the framework of its earlier additions and a severely restricted site and access routes, into a highly complex, thoroughly integrated and innovative terminal system. The appearance is intentionally understated to support the variety of

activities within a unified framework. The project involved more than twenty consultants, technical advisors and contractors.

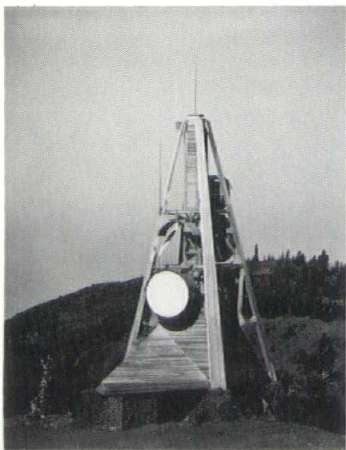
Architect: TRA; Owner: Port of Seattle; Contractors: Morrison-Knudsen Co., Inc.; Peter Kiewit Sons' Co.; Dravo Corp.; Howard S. Lease Construction Co.; Eberharder & Gaunt, Inc.; Westinghouse Electric Corp.; Rexnord Corp.



THE SEATTLE CENTER COVERED WALKWAYS were designed to minimize disruption of established plant material and tree lined walks and pedestrian traffic during construction. Steel and glass were combined to meet program and code requirements for a direct and graceful solution. By manipulation of the transparent cover's width, this combination was placed on existing tree

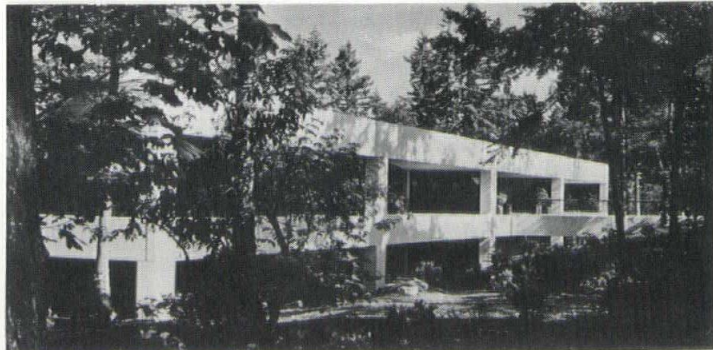
lined walks in a manner that allowed for the landscaping's continued appreciation. With our mild winters, this significant addition to the Center has encouraged a greater year-round use of the existing facilities by both local public and out-of-town groups.

Architect: TRA; Owner: City of Seattle; Contractor: Tullus Gordon



THE MISSION PEAK MICRO-WAVE TRANSMISSION TOWER in Wenatchee was given a 116 day limitation from start to finish which required construction to occur during severe winter weather conditions with the only access being a narrow ski trail. Compatibility with the surrounding natural wilderness was a major concern. The structure had to be designed to withstand winds up to 140 mph, temperatures from -40°F to +140°F, and severe frost and ice conditions. The form which emerged, seemingly fanciful, responds carefully to technical and environmental demands.

Architect: Shavey, DeGrasse, Shavey; Owner: General Telephone Co. of the Northwest, Inc.; Contractor: Armstrong & Armstrong



ALASKA AIRLINES, HEAD-QUARTERS BUILDING in Seattle is a corporate headquarters building of approximately 40,000 sq.ft. for a staff of 180 persons. It was designed to receive maximum benefit from a forest-like setting and disturb as little as possible the physical nature of the site. Energy conservation, future internal expansion and the opportunity for employees and visitors to

receive maximum exposure to the view were among design considerations. All components of the building are precast-prestressed concrete which arrived at the site via truck with construction completed in 14 days.

Architect: The McKinley Architects; Owner: Alaska Airlines; Contractor: Howard S. Wright

Founders

Founder Contributors

Washington Council, American Institute of Architects, extends its appreciation and thanks to Founder Contributors for their financial support and faith in the publication of *Northwest Architecture*.

Additional contributions are welcomed at the offices of the Washington Council, American Institute of Architects, McCleary Mansion, Suite 6, 111-21st S.W., Olympia, Washington 98501.

The following, all of whom have been founder contributors since January 1, 1980, have been added to the founder roster:

H.E.F. Design, Architects & Planners
Kramer, Chin & Mayo, Inc.
Mills, John and Rigdon, Architects, AIA
Benjamin K. Ruehl, AIA, Emeritus
Valentine, Fisher & Tomlinson
The Baylis Architects



An Apology . . .

The Lindstrom award-winning residence was inadvertently omitted from the "Exhibition Celebrating Architecture of the 70's" series in the May/June issue of *Northwest Architecture*.

LINDSTROM RESIDENCE, Bainbridge Island, this structure within a structure, places emphasis on privacy, view and maximum sun exposure. The outer structure makes use of modern materials of glue-laminated structural components and translucent fiber-glass roof in places. The post and beam form provides for minimum contact with the ground and maximum openness. Architect: Morgan and Lindstrom, AIA; Contractor: Walt Johnsen Construction.

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President

Carolyn Gardner
Carolyn Gardner,
Production Manager



Craftsman Press Building, Suite 500
1155 Valley St., Seattle 98109, 447-9511



People

Harold Broomell and Don Corson have joined John Graham and Company, Seattle-based architectural, engineering, and planning firm. Broomell is responsible for administration of the Energy Management Department. Corson was named associate director of planning for Graham Planning Services.

Emick/Howard & Associates, space planner and interior designer, has opened new offices in the Commuter Building, 61 Marion St., Seattle.

Gabbert Associates, Architect, is now Gabbert, Broweleit, Peterson Architects, Seattle, with Marlin J. Gabbert, AIA; Larry L. Broweleit, and David A. Peterson, AIA, as principals.

Duane E. Johns, AIA, has joined The Burke Associates, Seattle Architects and planners, following eight years in his own practice in Boise, Idaho.

Arthur B. Sirjord, PE, has been honored by the Washington Society of Engineers, Seattle, Chapter, as the 1980 Engineer of the Year. The award was given in recognition of dedication to the highest principles of the profession, concern for public welfare and leadership in both community and profession. Sirjord is a partner in TRA, Seattle-based architectural, engineering, planning and interior design firm.

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People

New principals at The NBBJ Group, which includes Naramore Bain Brady & Johanson, Business Space Design, and Management & Planning Services, all of Seattle, include **Douglas A. Bevis**, chief financial officer of The NBBJ Group; **Paul Mar**, director/consulting of Management and Planning Services; **Marian C. Martin**, director of interior design; **Donald A. Flynn**, director of architecture, and **Stuart D.**

Charles, general manager, all of Business Space Design. Other promotions include **Ron A. Bolstad**, director of technical architecture, and **H. Stephen Bettge**, A.H.C., director of life safety and code analysis, to Managing Associate, and **Robert E. Sears**, specifications writer, to Associate, all with Naramore Bain Brady & Johanson.

William R. Mincks, partner in Mincks Construction Co., general

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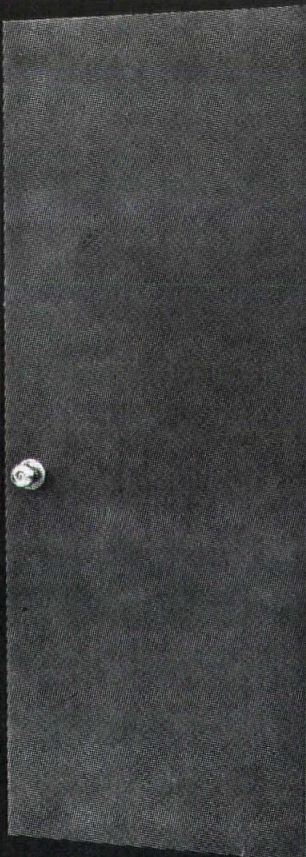
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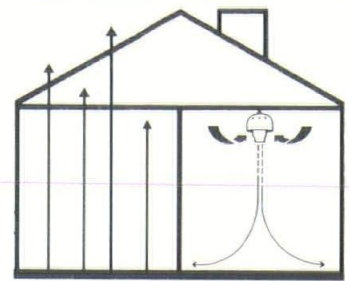
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contracting consultants, Spokane, has been elected director of the Northwest Region, Construction Specifications Institute. His term of office expires in July 1983.

Edward A. Duthweiler, AIA; Robert J. Nixon, FAIA; and George C. Oistad, AIA, have been named Associate Partners at TRA, Seattle. Associate Partnership is a new position with those appointed having increased responsibility and authority as well as signifying professional achievement.



GERRON



GRECO

Gerald Gerron and James Greco have been named to new positions at The McKinley Architects, Seattle. Gerron moves up from senior designer to director of design and will remain as corporate treasurer. Greco, former senior project manager, has been appointed director of production and corporate secretary.

Larry Peden, Spokane consulting structural



engineer, has been named 1980 Engineer of the Year by the Consulting Engineers Council of Washington.

Peden, who established his firm, Lawrence H. Peden & Associates in 1971, is a past president of the Structural Engineers Association of Washington,

past president of the Spokane Construction Council, an associate of the American Institute of Architects, a past director of the Consulting Engineers Council of Washington, and presently

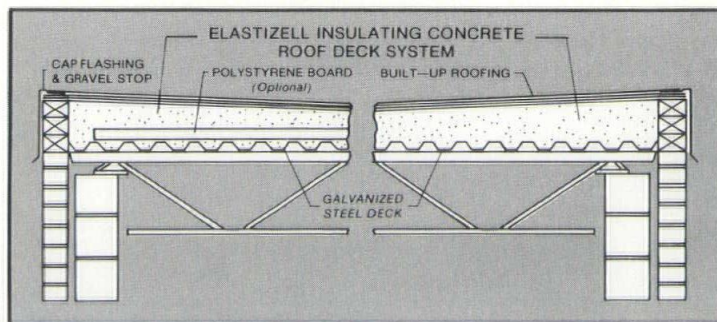
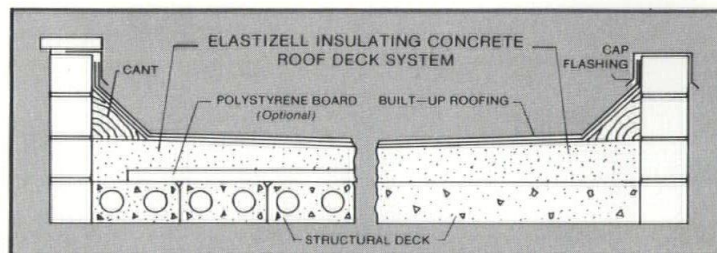
serves on the King County Design Commission and the Spokane County Building Code Appeals Board.

Brad A. Baker has been named as associate at Tisdale/Ralkowski/

Architects, Seattle. Baker joined the firm in 1977 upon graduation Washington State University.

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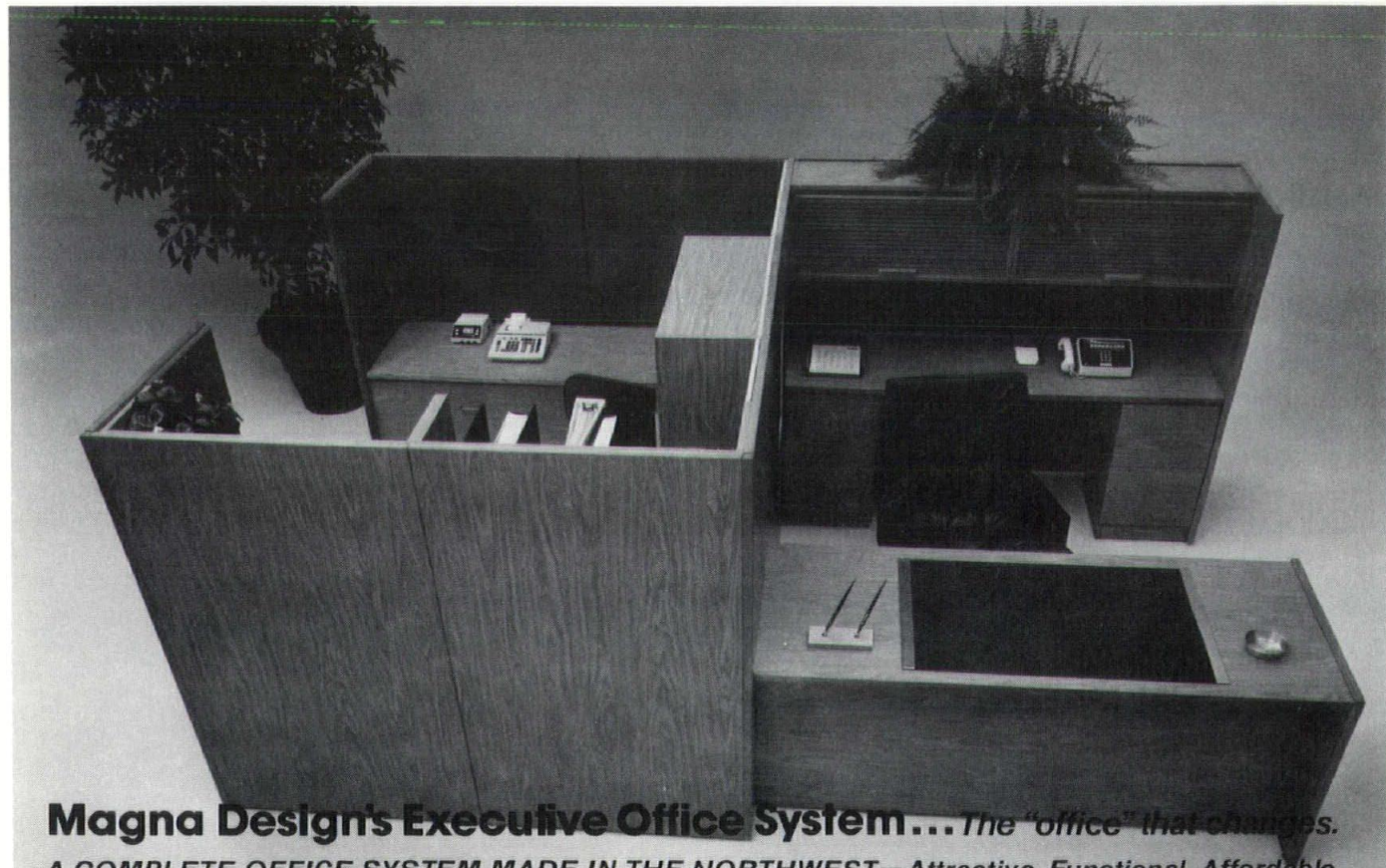
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